

WHAT IS CLAIMED IS:

1. A tire having at least one component comprised of a rubber composition which comprises, based on parts by weight per 100 parts by weight of rubber (phr):

(A) 100 phr of elastomers comprised of

(1) about 10 to about 95 phr of aqueous emulsion polymerization derived styrene/butadiene copolymer elastomer which contains pendent hydroxyl groups, wherein said elastomer contains from about 15 to about 28 weight percent bound styrene, and, ~~correspondingly,~~

(2) about 5 to about 90 phr of a tin coupled organic solvent solution polymerization derived elastomer selected from at least one of styrene/butadiene copolymer containing from about 15 to about 28 weight percent bound styrene ^{or} and isoprene/butadiene copolymer containing from about 10 to about 20 weight percent units derived from isoprene and which does not contain pendent hydroxyl groups,

(B) about 25 to about 95 phr reinforcing filler selected from carbon black, precipitated silica and silica-containing carbon black having domains of silica on its surface, wherein said precipitated silica and silica domains on said carbon black contain hydroxyl groups (~~e.g., silanol groups~~) on their surfaces;

wherein said reinforcing filler is comprised of

(1) about 35 to about 75 phr of carbon black and about 5 to about 20 phr of at least one of said precipitated ^{silica or} silica-containing carbon black, or

(2) about 5 to about 30 phr of carbon black and about 35 to about 90 phr of at least one of said precipitated silica and said silica-containing carbon black, and

(C) at least one silica coupling agent having a moiety reactive with hydroxyl (~~e.g., silanol groups~~) on the surface of the said precipitated silica and on the surface of said silica domains on the surface of said silica-containing carbon black, and an additional moiety interactive with the said elastomer(s), wherein said coupling agent is bis(3-triethoxysilylpropyl) polysulfide having an average of from 2 to 2.6 connecting sulfur atoms in its polysulfidic bridge.

2. The tire of claim 1 wherein said rubber composition is comprised of:

M
01-19-2005

(A) elastomers comprised of

(1) about 25 to about 75 phr of aqueous emulsion polymerization derived styrene/butadiene copolymer elastomer which contains pendent hydroxyl groups, wherein said elastomer contains from about 15 to about 28 weight percent bound styrene, and, ~~correspondingly,~~

(2) about 25 to about 75 phr of a tin coupled organic solvent solution polymerization derived styrene/butadiene copolymer containing from about 15 to about 28 weight percent bound styrene which does not contain pendent hydroxyl groups,

(B) about 25 to about 95 phr reinforcing filler selected from carbon black and precipitated silica, wherein said precipitated silica contains hydroxyl groups ~~(e.g., silanol groups)~~ on its surface;

wherein said reinforcing filler is comprised of :

(1) about 35 to about 75 phr of carbon black and about 5 to about 20 phr of said precipitated silica, or

(2) about 5 to about ²⁰~~35~~ phr of carbon black and about 35 to about ⁹⁰~~95~~ phr of said precipitated silica, and

(C) at least one silica coupling agent having a moiety reactive with hydroxyl ~~(e.g., silanol groups)~~ on the surface of the said precipitated silica, and an additional moiety interactive with the said elastomer(s), wherein said coupling agent is bis(3-triethoxysilylpropyl) polysulfide having an average of from 2 to 2.6 connecting sulfur atoms in its polysulfidic bridge.

3. The tire of claim 2 wherein said reinforcing filler is comprised of about 35 to about 75 phr of carbon black and about 5 to about 20 phr of said precipitated silica.

4. The tire of claim 2 wherein said reinforcing filler is comprised of about 5 to about 30 phr of carbon black and about 35 to about 95 phr of said precipitated silica.

5. The tire of claim 1 wherein said rubber composition comprises, based on parts by weight per 100 parts by weight of rubber (phr):

M
C1-19-2005

(A) 100 phr of elastomers comprised of

(1) about 25 to about 75, phr of aqueous emulsion polymerization derived styrene/butadiene copolymer elastomer which contains pendent hydroxyl groups, wherein said elastomer contains from about 15 to about 28 weight percent bound styrene, and, ~~correspondingly~~

(2) about 25 to about 75, phr of a tin coupled organic solvent solution polymerization derived elastomer comprised of an isoprene/butadiene copolymer containing from about 10 to about 20 weight percent units derived from isoprene and which does not contain pendent hydroxyl groups,

(B) about 25 to about 95 phr reinforcing filler selected from carbon black, precipitated silica and silica-containing carbon black having domains of silica on its surface, preferably aggregates of precipitated silica, wherein said precipitated silica and silica domains on said carbon black contain hydroxyl groups (~~e.g. silanol groups~~) on their surfaces;

wherein said reinforcing filler is comprised of

(1) about 35 to about 75 phr of carbon black and about 5 to about 20 phr of precipitated silica, or

(2) about 5 to about 30 phr of carbon black and about 35 to about 90 phr of said precipitated silica, and

(C) at least one silica coupling agent having a moiety reactive with hydroxyl (~~e.g. silanol groups~~) on the surface of the said precipitated silica and an additional moiety interactive with the said elastomer(s), wherein said coupling agent is bis(3-triethoxysilylpropyl) polysulfide having an average of from 2 to 2.6 connecting sulfur atoms in its polysulfidic bridge.

6. The tire of claim 5 wherein said reinforcing filler is comprised of about 35 to about 75 phr of carbon black and about 5 to about 20 phr of precipitated silica.

7. The tire of claim 5 wherein said reinforcing filler is comprised of about 5 to about 30 phr of carbon black and about 35 to about 90 phr of said precipitated silica.

8. The tire of claim 1 wherein said component is a tire tread.

01-19-2005

9. The tire of claim 2 wherein said component is a tire tread.
10. The tire of claim 3 wherein said component is a tire tread.
- 5 11. The tire of claim 4 wherein said component is a tire tread.
12. The tire of claim 5 wherein said component is a tire tread.
13. The tire of claim 6 wherein said component is a tire tread.
- 10 14. The tire of claim 7 wherein said component is a tire tread.